



GRATE MAGNET Operating, Cleaning, and Maintenance Procedures

IMPORTANT

Any magnet which accumulates iron on its surface will gradually decrease in separating efficiency as metal accumulates. As more of the magnetic strength is required to hold captured iron, less strength is available to attract additional iron. Efficiency may decrease to the point of allowing iron to get past the magnet entirely.

Therefore, it is important to periodically inspect and clean the tubes to maintain maximum separating efficiency.

As grate magnet tubes are made of thin-walled stainless steel, care should be taken during cleaning to prevent damage to the tubes. During cleaning, inspect the housing, drawer, tubes, and gaskets for damage.

OPERATING TEMPERATURE

- Operating temperature for ceramic magnets is -40°F through 482°F (-40°C through 250°C).
- Operating temperature for rare earth magnets is 176°F (80°C) or less.

NOTE: Extreme temperatures may affect the performance of the magnet. Refer to Bulletin 1214T.

TYPES OF GRATE MAGNETS

Standard Housed Grate Magnets

The grate drawer contains one or more banks of magnetic tubes in a housing.

Easy-Clean Housed Grate Magnets

The grate drawer contains one or more banks of tube within-a-tube assemblies. (Internal assembly of magnetic tubes is inserted into the drawer tubes.) Rare earth or a combination of rare earth and ceramic is recommended for easy-clean models.

Unhoused Grate Magnets

Grid, plain frame, drawer, or wing without housing.

CLEANING

In **single** drawer applications, the product flow should be shut off before removing any drawer. In **multiple** drawer applications, it is possible to clean one drawer at a time without shutting off the flow. (This is not recommended for very dusty material.)

The amount of iron in the product stream will determine the frequency of cleaning required for effective separation.

Standard Housed Grates

- 1) Open the latches holding the drawer assembly within the housing.
- 2) Carefully pull out the drawer until the stops catch the housing frame. The drawer assembly can be totally removed at this point by lifting up on the handle. Use caution, however, as the drawer can be heavy.
- 3) After removing the drawer assembly from the housing, remove any large tramp iron pieces. Using a clean, non-greasy cloth, wipe the grate to remove any remaining fuzz iron. In the case of rare earth grate magnets, adhesive tape can also be used to thoroughly remove fuzz iron.
- 4) Reinsert drawer into housing and secure the latches.

Easy-Clean Housed Grate Magnets

- 1) Open the latches holding the drawer assembly within the housing.
- 2) Carefully pull out the drawer until the stops catch the housing frame. The drawer assembly can be totally removed at this point by lifting up on the handle. Use caution, however, as the drawer can be heavy.
- 3) With the drawer outside the housing, unscrew the two captive screws on the drawer face.
- 4) Pull out the magnetic tube insert assembly as far as the coated wire permits. The captured fuzz iron will fall off the tubes. You may wish to hold a pan under the tubes to catch the iron.

NOTE: Do not remove the magnetic inserts without first pulling out the drawer as far as it will go or some fuzz iron may drop back into the product.

- 5) Push the tube assembly back into the drawer frame, replace the two captive screws, push the drawer assembly into the housing and secure the latches.

Unhoused Grate Magnets

The cleaning procedure for unhoused grate magnets is basically the same as for standard housed units: Simply remove the grate from the product flow area and remove as much accumulated fuzz iron as possible. Reinsert magnet.